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ROTHWELL, FIGG, ERNST & MANBECK, P.C.
1425 K STREET, N.W.
SUITE 800
WASHINGTON, DC 20005

EXAMINER

GORDON, BRIAN R

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/073,346

Applicant(s)

AMMANN ET AL.

Examiner

Brian R. Gordon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7-24-06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-23 and 31-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-23 and 31-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed July 24, 2006 have been fully considered but they are not persuasive. Applicant states it was recommended by the previous examiner to amend claim 1 to incorporate claim 4 therein. Applicant has not amended the claims as suggested.

After further review of applicant's claims and specification the examiner has formed the following rejections. Based on the fact that the specification does not provide a definition for the term "command-responsive". As such, the term is given its broadest possible meaning. The examiner therefore asserts the term could mean a verbal or manual command. As such, one can provide a manual command and close the door. It appears as if the term was previously interpreted to inherently require some type of electrical, automated, computer, or etc. limitations read into the term (claim). As previously stated the term is not defined in the specification as such reading limitations into the term is considered improper. If applicant disagrees, applicant is invited to indicate where the term is defined in the specification. A door closed manually by an operator is considered to be responsive to manual commands of the operator.

The only requirement of the command responsive closure mechanism is that it includes a door. The prior art discloses doors capable of being opened and closed as cited in the claim.

As to the sensors, it should be noted that its only required the sensor have the ability to detect if the door is in a closed position or open position. The term "or" is

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alternative language. As such prior art that discloses a system that detects one of the two positions meets the limitation of the claim. It's not required that the sensor detect both positions. However, Hugh clearly discloses a means for detecting when door is opened as well as closed via the circuit and logic level signal which indicates when the door is in contact with or out of contact with the frame (as stated in passage of col. 11, lines 53-67). As to applicant arguments or comparison of an incubator and a kitchen refrigerator door is a comparison of non-analogous art. Furthermore, the comments are not commensurate in scope with the claims. However, the examiner's asserts the automation of any door used as entry or exit has a number of benefits. For example, automated doors allows one to be free of having to employ their hands to touch the door or used physical force to open the doors. Everyone may not have the physical ability to open a door. Automated doors free up ones' hands to carry objects freely without having to put them down to open the door manually. Automated doors reduce the probability of further contamination of ones hands. Furthermore applicant's own submission of the IDS filed with the instant response illustrates automated doors are conventionally known (as exemplified by Porte US, 5,250,261 at column 1 lines 10-27).

It should be noted the degree of which the door is opened is not a structural limitation nor issue of claim 1 as suggested by applicant (page 14, last paragraph of remarks). As such an argument directed, thereto is not commensurate in scope with that of the claim. Even it the claim did recited when the door is open it is open by a sufficient amount to permit a reaction receptacle to pass through the receptacle access opening, the claim would remain rejected. There is no indication as to determine what

degree of open is sufficient for a receptacle to pass. That would depend on the size of the receptacle. The claim does not claim a receptacle of any specific dimensions. Even if the receptacle were claimed, the device of Hugh is an incubator where containers are placed through the open door to be incubated.

Applicant further states the Hugh does not disclose the incubator is not part of an automated system. This argument is not commensurate in scope with that of the claim for applicant's claim is not directed to an "automated system" as implied. Furthermore as stated above the text of the claim does not specify nor inherently assume such a limitation of being automated or including automated components. Even if the claim were amended to recite the system and or door is automated. The examiner agrees with the position of the previous examiners. The ability to employ a computer, controller, mechanical means, and etc. to perform manual mechanical actuations (automated opening and closing of a door) is conventional and well-known and such a modification to a manual device would only require routine skill in the art.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The specification does not define the term "command-responsive" (as stated above), hence it is unclear what the term means. Therefore the term has been interpreted as stated above.

As to claim 17 it is unclear how the housing comprises a circular lid, when it is said the disclosed housing has a door. It appears as if the claim is directed to the cooled housing in which the carousel resides. Therefore the specific cooled housing must first be claimed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 4-5, 7-9, 20, 21-23, and 31 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over 6,503,751 to Hugh.

Hugh discloses an incubator comprising a housing generally including an insulated housing (12) with an interior controlled atmosphere chamber (14). Chamber (14) is accessed via an outer insulated and inner heated pair of doors (16, 18) (command responsive closure mechanism). The doors are attached to the housing by way of a pair of hinges (20, 22). The door pivots (rotates) from a closed to open position

(and vice versa) via the hinges. At col. 11, lines 52 - col. 12, line 5, Hugh discloses a door position detection circuit to determine the position of the door. Inside the housing 12 are mounted shelves. The shelves can be considered to be receptacle carriers and the spaces between the shelves (where objects to be incubated are placed) can be considered equivalent to Applicants' claimed receptacle stations. The incubator is heated via electric heating elements (79). A microprocessor (300) controls the heater, fan and gas flow into the incubator. The fan comprises a fan motor which circulates air within the incubator (col. 12, lines 51-58). The further includes a temperature control system and temperature probe (126).

Hugh further teaches that the incubator comprises a temperature sensor (314). Hugh differs from the instant invention in that there is no teaching of the pair of doors (16, 18) being closed via an automated electronic command control system. Hugh does teach the doors are constructed to be moved between an open and closed position.

With respect to that movement being automated via an electronic command, the position the Examiner takes is that such electronic automated movement would have been obvious to one of ordinary skill in the art to allow the doors to open and shut in an automated manner, without the need for the user to perform this action. Such modification would provide the advantage of allowing the incubator to operated without user intervention and more importantly, to allow the incubator's door to close and shut at the most opportune time, which would allow the apparatus to operate more efficiently.

Claim Rejections - 35 USC § 103

6. Claims 1, 4-5, 7-11, 13, 16-17, 20, 21-23, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Porte US 5,250,261 in view of Hugh as applied above.

Porte discloses an incubator comprising a plurality of stations each constructed to hold an assay for incubation at a controlled temperature, a housing enclosing the stations, means for adjusting the temperature within the housing, at least one aperture in the housing for providing access to the stations, and door means for opening and closing each at least one aperture automatically in response to a signal, the door means including a movable door for each aperture.

Porte discloses all of the claimed elements except for the door sensors.

It would have been obvious to one of ordinary skill in the art to incorporate the door sensing circuit of Hugh in order to indicate when the door of the device is open.

As shown in FIGS. 1 and 2, an incubator 10 in a clinical analyzer comprises a housing 12 on a floor 14, FIG. 2, the housing having as is conventional several access apertures 16, 18 and 20, FIG. 1, preferably provided in the top surface of the incubator housing. (Alternatively they can be located elsewhere.) Also as is conventional, incubator 10 includes heating elements 22, e.g., in the housing as shown in FIG. 2, or adjacent, and a temperature sensor, e.g., thermistor 24, to sense and control the temperature of the incubator, and a rotor 30 (carousel) for holding patient sample and reagents for incubation. Preferably, the assay is a wet assay, so that rotor 30 has slots 32, FIG. 3, to accommodate cuvettes C on rails 34, the slots opening inwardly, FIG. 2,

for example, to allow movement of cuvettes C off the rotor, by a mechanism not shown. Rotor 30 is mounted for rotation by any suitable mechanism, e.g., bearings 36, FIG. 2, a rack gear 40 being provided on the outside of the rotor for engagement by a drive mechanism, e.g., pinion gear 42 as shown (or a toothed belt drive).

7. Claims 2, 3, 17-19, and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hugh as applied to claims 1, 4-5, 7-9, 20, 21, and 31 above, and further in view of Kawaguchi et al.

The disclosure of Hugh differs from the instant invention in that there is no disclosure of a mixing means in the incubator.

Kawaguchi et al teach an incubator for the pretreatment of samples. The incubator is equipped with an agitation means for agitating diluted sample, promoting the pretreatment reaction stably, and promoting the main reaction. Kawaguchi et al teach agitation means in the form of vibration agitation, stirring means where the sample liquid is directly stirred or magnetic agitation.

It would have been obvious to one of ordinary skill in the art to incorporate a mixing means into the incubator of Hugh. Such mixing means would allow a sample to be mixed so as to facilitate treatment of the sample or to facilitate reaction of the sample with added reagents.

As to claim 17 it would have been obvious to recognize the box structure may be modified to a cylindrical shape as a matter of a personal design choice.

As to claim 19, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the device with feet, sliders, or feet made of poor

conducting material to prevent the device from sitting directly on a surface and conducting heat thereto.

8. Claims 10-16 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hugh as applied to claims 1, 4-5, 7-9, 20, 21, and 31 above Robinson et al., US 5,374,395

Robinson et al. disclose an automated analyzer machine, remote-controlled trams transport test packs containing loading/unloading station to a processing/testing station via a carousel (400) and vice versa. In the processing station, a special processor with mechanically-operated rollers mixing shoes, wastegate assembly, magnets, clamp plate and a thermal sealer, process samples in test packs with various reagents to detect an analyte. The carousel holds the test packs during incubation periods and rotates the tested disposable packs past an optical reader which optically senses the presence of an analyte in the sample.

The device includes a responsive door 110 in which the device detects when the door is closed and then begins operated automatically upon detecting the door is closed (beginning at col. 9, line 10).

The bar code readers 304 and 306 are stationary units mounted inside the load chamber. The bar code readers' red lights are visible when the load door is open as shown in FIG. 2.

As shown in FIG. 10, the load tram 300 has: an upper load tram assembly 324, a load tram support 326, a load tram motor gearbox and encoder 328, a load spring 330, a lower load tram assembly 332, a thermal door assembly 334, a drive shaft 336 and a

rotary cylinder 338. The twin drive belts 308 and 310 of the upper and lower load tram assemblies 324 and 326 are driven by a single motor gearbox 328. An encoder on the gearbox motor assists in obtaining accurate placement of the test pack on the carousel. The drive belts 308 and 310 can be steel/kevlar reinforced to avoid belt stretch and reduce backlash. Tensioner plates 340 and 341 (FIGS. 10, 12 and 13) at each end of the upper and lower tram assemblies can be provided to adjust the tension of the drive belts 308 and 310. Couplings 344 (FIG. 11) are provided to allow easy drive connection between the shaft 336 of the upper and lower load tram assemblies. A lower drive clamp 348 (FIG. 11) is provided to attach the motor gearbox and encoder to the drive system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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